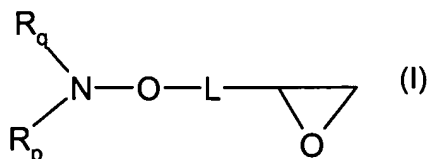


In the Claims

1. (currently amended) A Method for the preparation of a comb or star copolymer comprising

a) ~~polymerising~~polymerizing in a first step one or more epoxy group containing monomers to obtain a polyether, wherein at least one monomer is of formula (I)



wherein L is a linking group selected from the group consisting of C_1 - C_{18} alkylene, phenylene, phenylene- C_1 - C_{18} alkylene, C_1 - C_{18} alkylene-phenylene, C_1 - C_{18} alkylene-phenylene-oxy and C_5 - C_{12} cycloalkylene;

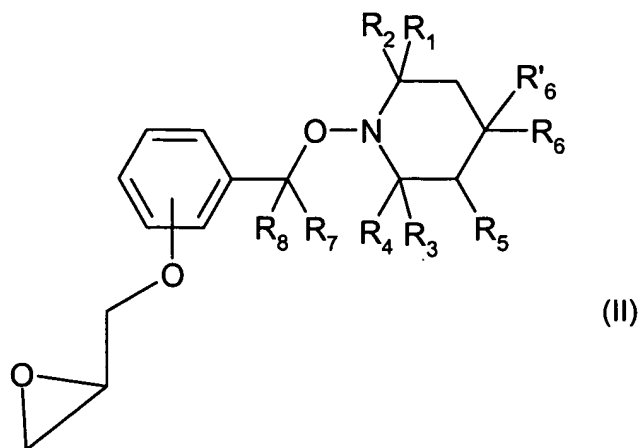
R_p and R_q are independently tertiary bound C_4 - C_{28} alkyl groups which are unsubstituted or substituted by one or more electron withdrawing groups or by phenyl; or

R_p and R_q together form a 5 or 6 membered heterocyclic ring which is substituted at least by 4 C_1 - C_4 alkyl groups and which may be interrupted by a further nitrogen or oxygen atom;

and in a second step

b) adding to the polymer obtained in step a) at least one ethylenically unsaturated monomer or oligomer, heating the resulting mixture to a temperature where cleavage of the nitroxylether bond occurs and radical polymerization starts; and polymerizing to the desired degree.

2. (currently amended) A method~~process~~ according to claim 1 wherein the monomer of formula (I) is of formula (II)



wherein

R_1 , R_2 , R_3 and R_4 are independently of each other C_1 - C_4 alkyl;

R_5 is hydrogen or C_1 - C_4 alkyl;

R'_6 is hydrogen and R_6 is H, OR_{10} , $NR_{10}R_{11}$, $-O-C(O)-R_{10}$ or $NR_{11}-C(O)-R_{10}$;

R_{10} and R_{11} independently are hydrogen, C_1 - C_{18} alkyl, C_2 - C_{18} alkenyl, C_2 - C_{18} alkynyl or C_2 - C_{18} alkyl which is substituted by at least one hydroxy group or, if R_6 is $NR_{10}R_{11}$, taken together, form a C_2 - C_{12} alkylene bridge or a C_2 - C_{12} -alkylene bridge interrupted by at least one O atom; or

R_6 and R'_6 together are both hydrogen, a group $=O$ or $=N-O-R_{20}$ wherein

R_{20} is H, straight or branched C_1 - C_{18} alkyl, C_3 - C_{18} alkenyl or C_3 - C_{18} alkynyl, which may be unsubstituted or substituted, by one or more OH, C_1 - C_8 alkoxy, carboxy, C_1 - C_8 alkoxycarbonyl;

C_5 - C_{12} cycloalkyl or C_5 - C_{12} cycloalkenyl;

phenyl, C_7 - C_9 phenylalkyl or naphthyl which may be unsubstituted or substituted by one or more C_1 - C_8 alkyl, halogen, OH, C_1 - C_8 alkoxy, carboxy, C_1 - C_8 alkoxycarbonyl;

$-C(O)-C_1-C_{36}$ alkyl, or an acyl moiety of a α,β -unsaturated carboxylic acid having 3 to 5 carbon atoms or of an aromatic carboxylic acid having 7 to 15 carbon atoms;

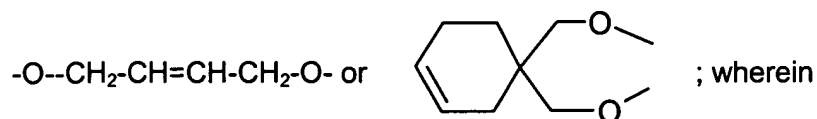
$-SO_3^-Q^+$, $-PO(O^-Q^+)_2$, $-P(O)(OR_2)_2$, $-SO_2-R_2$, $-CO-NH-R_2$, $-CONH_2$, $COOR_2$, or $Si(Me)_3$, wherein Q^+ is H^+ , ammonium or an alkali metal cation; or

R_6 and R'_6 are independently $-O-C_1-C_{12}$ alkyl, $-O-C_3-C_{12}$ alkenyl, $-O-C_3-C_{12}$ alkynyl, $-O-C_5-C_8$ cycloalkyl, $-O$ -phenyl, $-O$ -naphthyl, $-O-C_7-C_9$ phenylalkyl; or

R_6 and R'_6 together form one of the bivalent groups $-O-C(R_{21})(R_{22})-CH(R_{23})-O-$,

$-O-CH(R_{21})-CH_2-C(R_{22})(R_{23})-O-$, $-O-CH(R_{22})-CH_2-C(R_{21})(R_{23})-O-$, $-O-CH_2-C(R_{21})(R_{22})-CH(R_{23})-O-$,

$-O$ -o-phenylene- $O-$, $-O$ -1,2-cyclohexyliden- $O-$,



R₂₁ is hydrogen, C₁-C₁₂alkyl, COOH, COO-(C₁-C₁₂)alkyl or CH₂OR₂₄;

R₂₂ and R₂₃ are independently hydrogen, methyl ethyl, COOH or COO-(C₁-C₁₂)alkyl;

R₂₄ is hydrogen, C₁-C₁₂alkyl, benzyl, or a monovalent acyl residue derived from an aliphatic, cycloaliphatic or aromatic monocarboxylic acid having up to 18 carbon atoms; and

R₇ and R₈ are independently hydrogen or C₁-C₁₈alkyl.

3. (original) A method according to claim 2 wherein R₁, R₂, R₃, R₄ are methyl, or R₁ and R₃ are ethyl and R₂ and R₄ are methyl, or R₁ and R₂ are ethyl and R₃ and R₄ are methyl.

4. (original) A method according to claim 2 wherein R₅ is hydrogen or methyl.

5. (original) A method according to claim 2 wherein

R'₆ is hydrogen and R₆ is H, OR₁₀, NR₁₀R₁₁, -O-C(O)-R₁₀ or NR₁₁-C(O)-R₁₀;

R₁₀ and R₁₁ independently are hydrogen, C₁-C₁₈alkyl, C₂-C₁₈alkenyl, C₂-C₁₈alkinyl or C₂-C₁₈alkyl which is substituted by at least one hydroxy group or, if R₆ is NR₁₀R₁₁, taken together, form a C₂-C₁₂alkylene bridge or a C₂-C₁₂-alkylene bridge interrupted by at least one O atom; or

R₆ and R'₆ together are both hydrogen, a group =O or =N-O-R₂₀ wherein

R₂₀ is H or straight or branched C₁-C₁₈alkyl.

6. (currently amended) A method according to claim 2 wherein

R₆ and R'₆ together form one of the bivalent groups -O-C(R₂₁)(R₂₂)-CH(R₂₃)-O-,

-O-CH(R₂₁)-CH₂-C(R₂₂)(R₂₃)-O-, -O-CH(R₂₂)-CH₂-C(R₂₁)(R₂₃)-O-[[,]] or

-O-CH₂-C(R₂₁)(R₂₂)-CH(R₂₃)-O-] where and R₂₁, R₂₂ and R₂₃ have the meaning as defined in claim 2.

7. (currently amended) A method according to claim 1 where step a) comprises polymerizing an
~~wherein the~~ epoxy group containing monomer different from formula (I), which monomer is selected from the group consisting of ethylene oxide, propylene oxide, 2,3-epoxypropyl-phenylether, 2,3-epoxypropyl-4-nonyl-phenylether, epichlorohydrine and 2,3-epoxypropyl-2,2,3,3,4,4,5,5-octafluoropentylether.

8. (currently amended) A method according to claim 1 wherein in ~~step~~Step a) the weight ratio of the monomer of formula (I) to the sum of the other monomers is from 99:1 to 1:99.

9. (currently amended) A method according to claim 1 wherein in step b) the ethylenically unsaturated monomer or oligomer is selected from the group consisting of styrene, substituted styrene, conjugated dienes, vinyl acetate, vinylpyrrolidone, vinylimidazole, maleic anhydride, (alkyl)acrylic acid_anhydrides, (alkyl)acrylic acid salts, (alkyl)acrylic esters, (meth)acrylonitriles, (alkyl)acrylamides, vinyl halides and vinylidene halides.

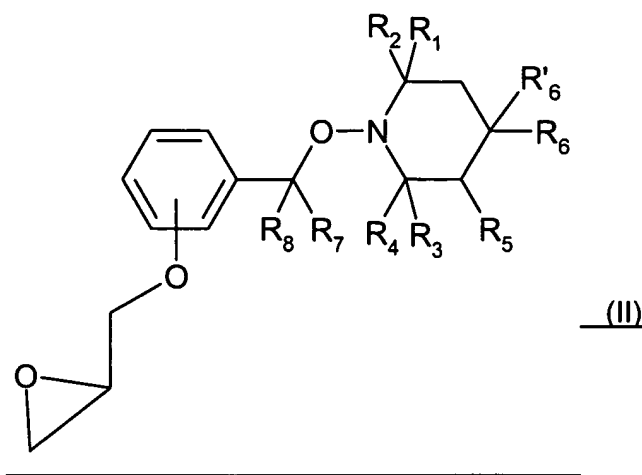
10. (currently amended) A method according to claim 9 wherein in step b) the ethylenically unsaturated monomers are styrene, methylacrylate, ethylacrylate, butylacrylate, isobutylacrylate, tert[[.]] butylacrylate, hydroxyethylacrylate, hydroxypropylacrylate, dimethylaminoethylacrylate, methyl(meth)acrylate, ethyl(meth)acrylate, butyl(meth)acrylate, hydroxyethyl(meth)acrylate, hydroxypropyl(meth)acrylate, dimethylaminoethyl(meth)acrylate, acrylonitrile, acrylamide, methacrylamide or dimethylaminopropyl-methacrylamide.

11. (original) A method according to claim 1 wherein in step b) the weight ratio between the polyether prepared in step a) and the ethylenically unsaturated monomer is from 90:10 to 10:90.

12. (original) A method according to claim 1 wherein in step b) the polymerization temperature is from 80° C to 160° C.

13. (currently amended) A composition comprising a compound of formula (II) ~~as defined in claim 2~~, at least one epoxy functional monomer different from that of formula (II) and optionally water or an organic solvent or a mixture ~~[[s]]~~ thereof,

where the compound of formula (II) is



wherein

R₁, R₂, R₃ and R₄ are independently of each other C₁-C₄alkyl;

R₅ is hydrogen or C₁-C₄alkyl;

R'₆ is hydrogen and R₆ is H, OR₁₀, NR₁₀R₁₁, -O-C(O)-R₁₀ or NR₁₁-C(O)-R₁₀;

R₁₀ and R₁₁ independently are hydrogen, C₁-C₁₈alkyl, C₂-C₁₈alkenyl, C₂-C₁₈alkynyl or C₂-C₁₈alkyl which is substituted by at least one hydroxy group or, if R₆ is NR₁₀R₁₁, taken together, form a C₂-C₁₂alkylene bridge or a C₂-C₁₂-alkylene bridge interrupted by at least one O atom; or

R₆ and R'₆ together are both hydrogen, a group =O or =N-O-R₂₀ wherein

R₂₀ is H, straight or branched C₁-C₁₈alkyl, C₃-C₁₈alkenyl or C₃-C₁₈alkynyl, which may be unsubstituted or substituted, by one or more OH, C₁-C₈alkoxy, carboxy, C₁-C₈alkoxycarbonyl;

C₅-C₁₂cycloalkyl or C₅-C₁₂cycloalkenyl;

phenyl, C₇-C₉phenylalkyl or naphthyl which may be unsubstituted or substituted by one or more

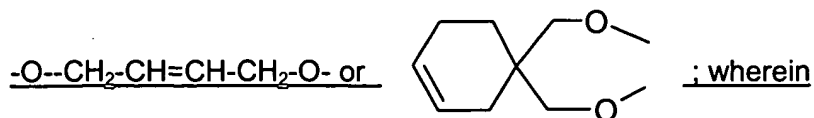
C₁-C₈alkyl, halogen, OH, C₁-C₈alkoxy, carboxy, C₁-C₈alkoxycarbonyl;

-C(O)-C₁-C₃₆alkyl, or an acyl moiety of a α,β -unsaturated carboxylic acid having 3 to 5 carbon atoms or of an aromatic carboxylic acid having 7 to 15 carbon atoms;

-SO₃⁻Q⁺, -PO(O⁻Q⁺)₂, -P(O)(OR₂)₂, -SO₂-R₂, -CO-NH-R₂, -CONH₂, COOR₂, or Si(Me)₃, wherein Q⁺ is H⁺, ammonium or an alkali metal cation; or

R₆ and R₆' are independently -O-C₁-C₁₂alkyl, -O-C₃-C₁₂alkenyl, -O-C₃-C₁₂alkinyl, -O-C₅-C₈cycloalkyl, -O-phenyl, -O-naphthyl, -O-C₇-C₉phenylalkyl; or

R₆ and R₆' together form one of the bivalent groups -O-C(R₂₁)(R₂₂)-CH(R₂₃)-O-, -O-CH(R₂₁)-CH₂-C(R₂₂)(R₂₃)-O-, -O-CH(R₂₂)-CH₂-C(R₂₁)(R₂₃)-O-, -O-CH₂-C(R₂₁)(R₂₂)-CH(R₂₃)-O-, -O-o-phenylene-O-, -O-1,2-cyclohexylen-O-,



R₂₁ is hydrogen, C₁-C₁₂alkyl, COOH, COO-(C₁-C₁₂)alkyl or CH₂OR₂₄;

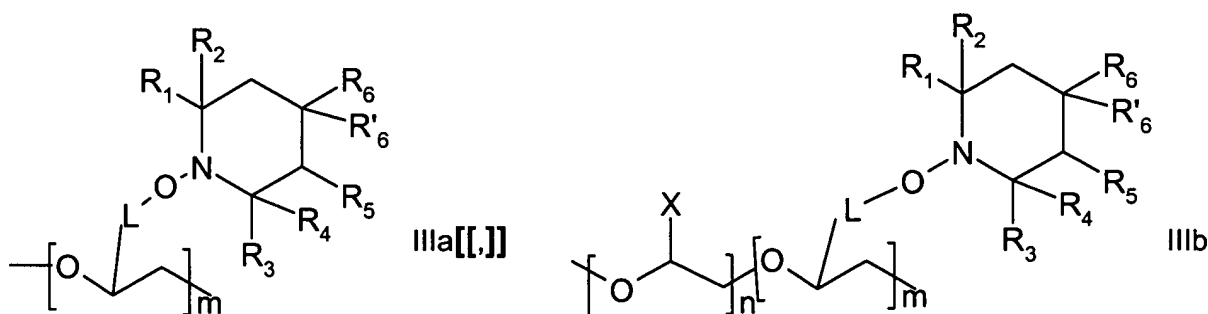
R₂₂ and R₂₃ are independently hydrogen, methyl ethyl, COOH or COO-(C₁-C₁₂)alkyl;

R₂₄ is hydrogen, C₁-C₁₂alkyl, benzyl, or a monovalent acyl residue derived from an aliphatic, cycloaliphatic or aromatic monocarboxylic acid having up to 18 carbon atoms; and

R₇ and R₈ are independently hydrogen or C₁-C₁₈alkyl.

14. (currently amended) A polyether obtained ~~able~~ according to step a) of the method of claim 1.

15. (currently amended) A polyether obtained according to step a) of claim 2, having a repetitive structural element of formula IIIa or IIIb



wherein ~~R₁, R₂, R₃, R₄, R₅, R₆, R₆' and L are as defined above~~ **[[,]]** m and n are number from 10 to 1000 and

X is H, CH₃, CH₂-O-C₆H₅, CH₂-O-C₆H₅-C₉H₁₉, -CH₂Cl or CH₂-O-CH₂-(CF₂)₃CHF₂.

16. (currently amended) A comb or star copolymer obtained~~able~~ according to the method of claim 1.

17. (currently amended) A comb or star copolymer according to claim 16 wherein the ethylenically unsaturated monomer ~~forming the comb or star~~ is selected from the group consisting of styrene, substituted styrene, (alkyl)acrylic acidanhydrides, (alkyl)acrylic acid salts, (alkyl)acrylic esters, (meth)acrylonitriles and (alkyl)acrylamides.

18. (canceled)

19. (currently amended) ~~Use of a~~ A composition comprising a comb or star copolymer obtained~~able~~ according to the method of claim 1 ~~as adhesive, surface modifier, surfactant or compatibilizer in and a~~ thermoplastic, elastic or thermosetting polymer~~[[s]] or as plastic material for extrusion or injection molding for shaping parts.~~